

(19)

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(11)

EP 1 179 852 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
20.08.2003 Bulletin 2003/34

(51) Int Cl.7: **H01L 27/146, H01L 31/0224**

(43) Date of publication A2:
13.02.2002 Bulletin 2002/07

(21) Application number: **01306424.1**

(22) Date of filing: **26.07.2001**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR**
Designated Extension States:
AL LT LV MK RO SI

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(30) Priority: **03.08.2000 US 632106**

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(54) Solid state imager having gated photodiodes and method for making same

(57) A solid state imager is provided that comprises an imaging array of gated photodiodes. The imager comprises a plurality of photosensor pixels arranged in a pixel array, and each of the photosensor pixels includes a photodiode having a sidewall, the sidewall having a gate dielectric layer disposed thereon, and a field plate disposed around the photodiode body. The field plate comprises amorphous silicon disposed on the gate

dielectric layer and extends substantially completely around the sidewall of said photodiode. The field plate is electrically coupled to the common electrode of the imaging array so that the field plate creates an electric field around the photodiode body in correspondence with the potential of said common electrode. A method of fabricating the gated photodiode array is also provided.

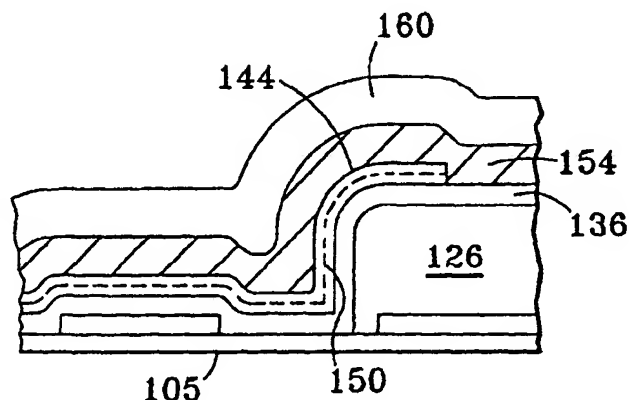


FIG. 4

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EUROPEAN SEARCH REPORT

Application Number
EP 01 30 6424

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			H01L H04N
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 2 July 2003	Examiner Cabrita, A
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03 82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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